



HIPERACCESS Status and Plans

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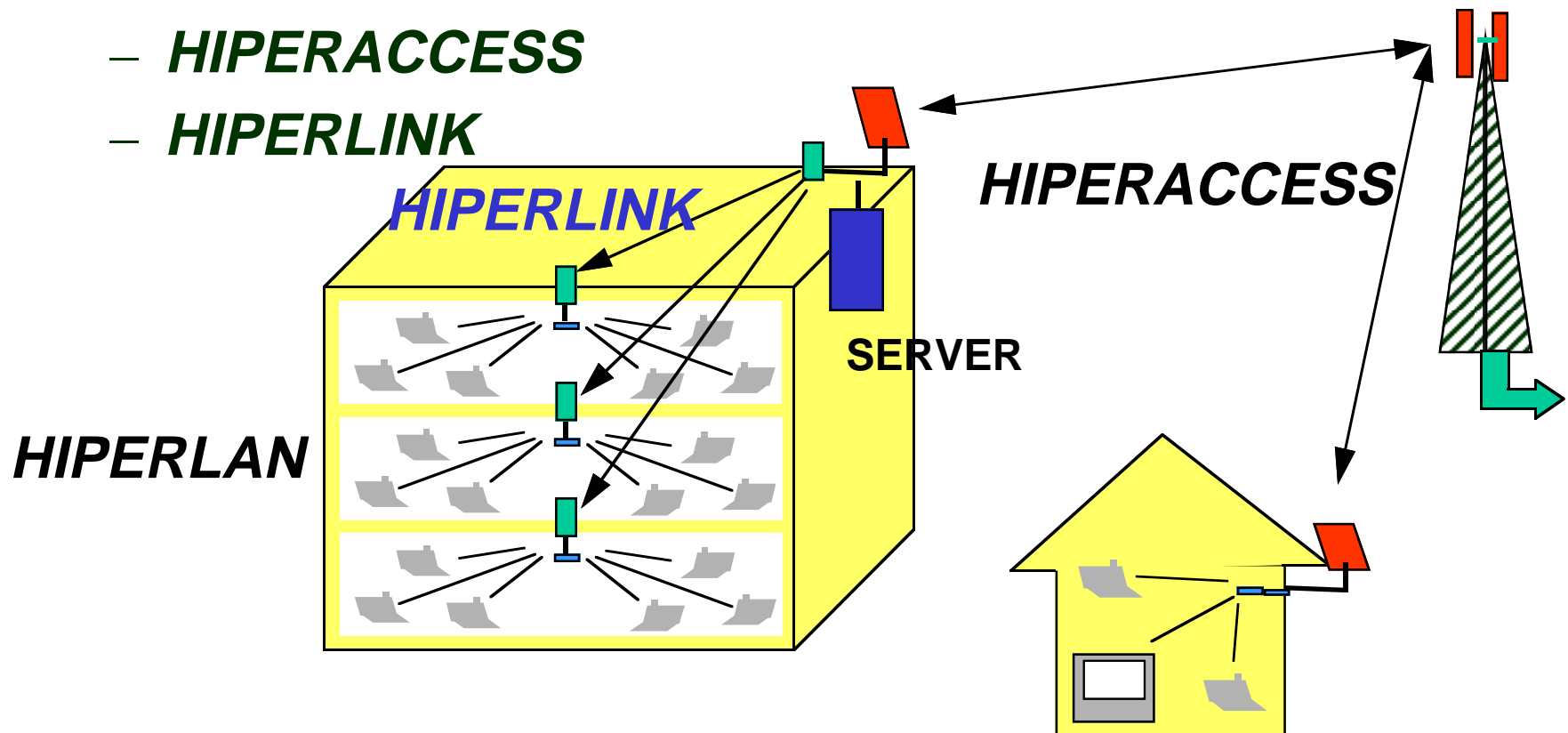


BRAN

Broadband Radio Access Network

- **An ETSI Project Covering:**

- **HIPERLAN**
- **HIPERACCESS**
- **HIPERLINK**



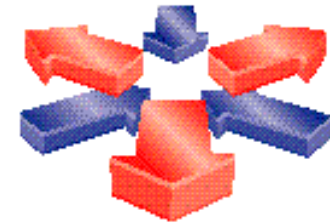


Content

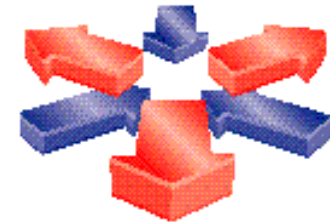
- **What is HA**
- **Status**
 - *HA Technical Requirements*
 - *HA System Overview*
- **Spectrum Issues**
- **Plans**
 - *Interoperability*
 - *Coexistence*
- **Current Activities**



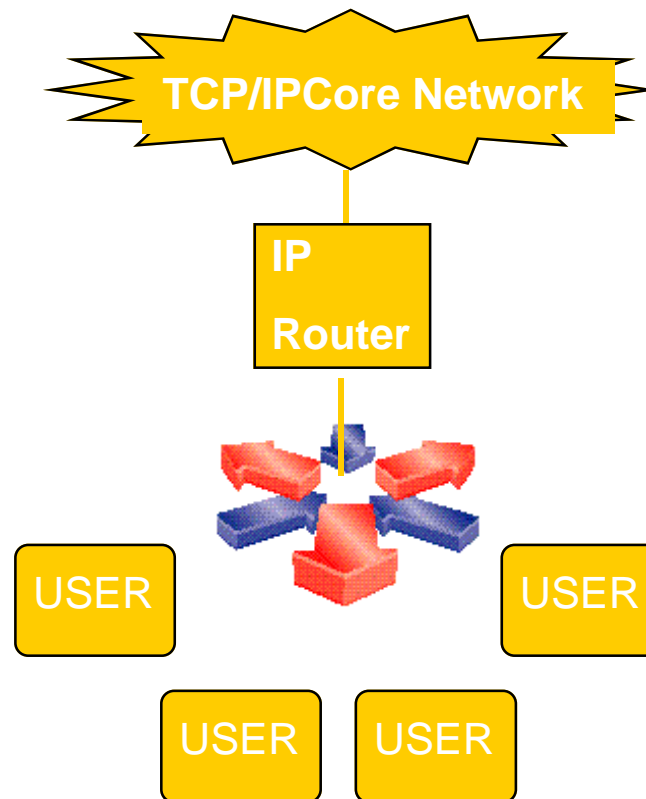
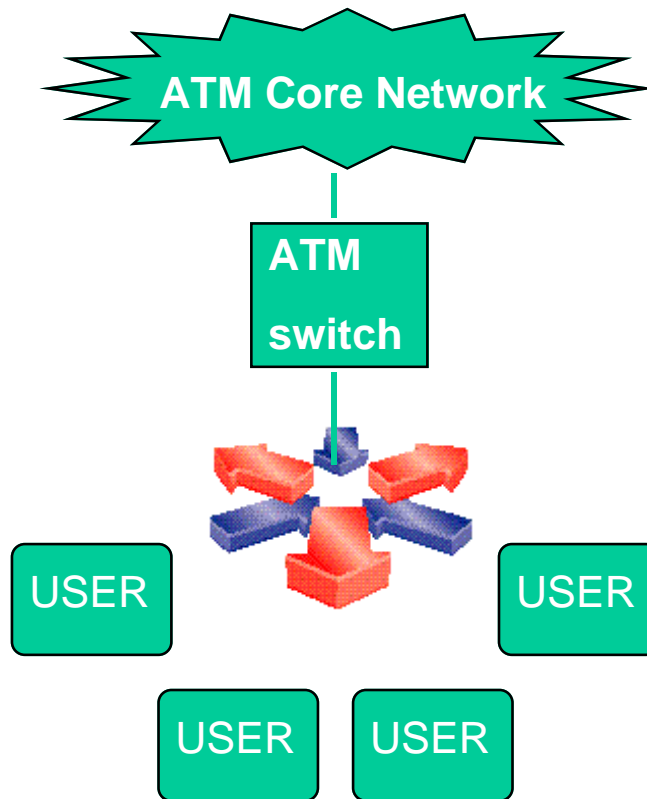
- ***What is HIPERACCESS? (I)***
- **HIPERACCESS systems are means offering Wireless Broadband Access to (mainly) residential customers and small-to medium-sized enterprises.**
- **HIPERACCESS Systems are intended to be able to compete with and complement broadband wired access systems including among other**
 - ***x (=generic) Digital Subscriber Loop (xDSL) and***
 - ***cable modems.***

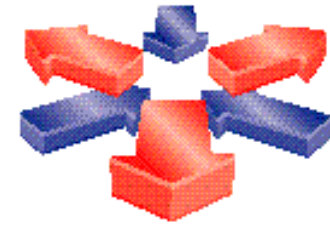


- ***What is HIPERACCESS? (II)***
- **operates at up to 25 Mbit/s**
- **provides long range and fixed radio connections to customer premises**
- **outdoor usage for residential and small to medium-sized business applications with a coverage of up to 5 km**
- **wireless access to private networks and public operators (urban and rural)**
- **mainly licensed, but also licence-exempt**



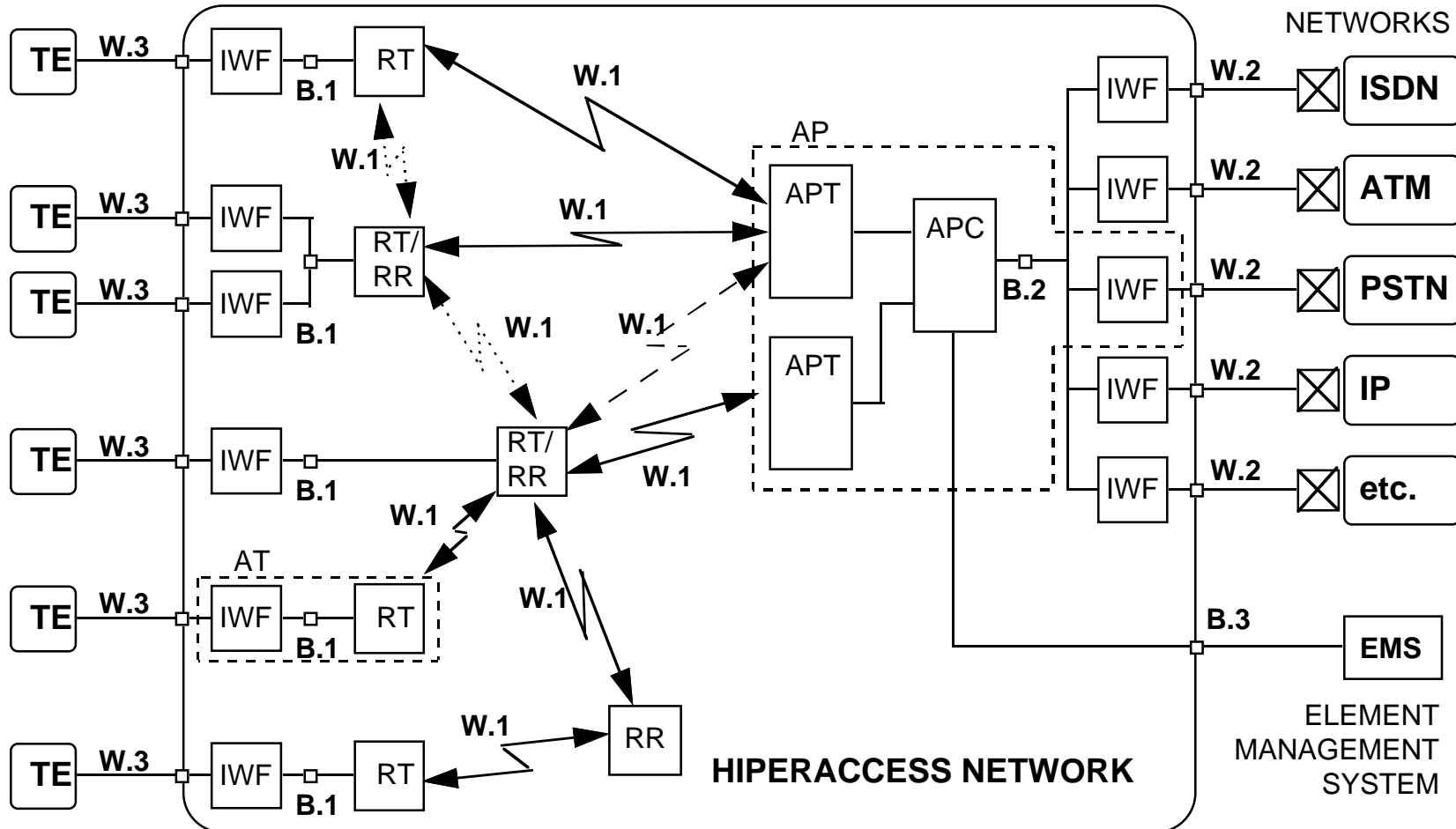
- ***Suitable in ATM and IP environment***





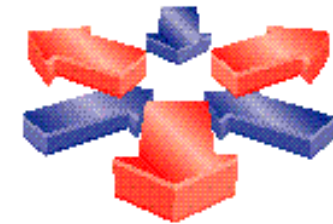
• *General Reference Model*

TERMINALS

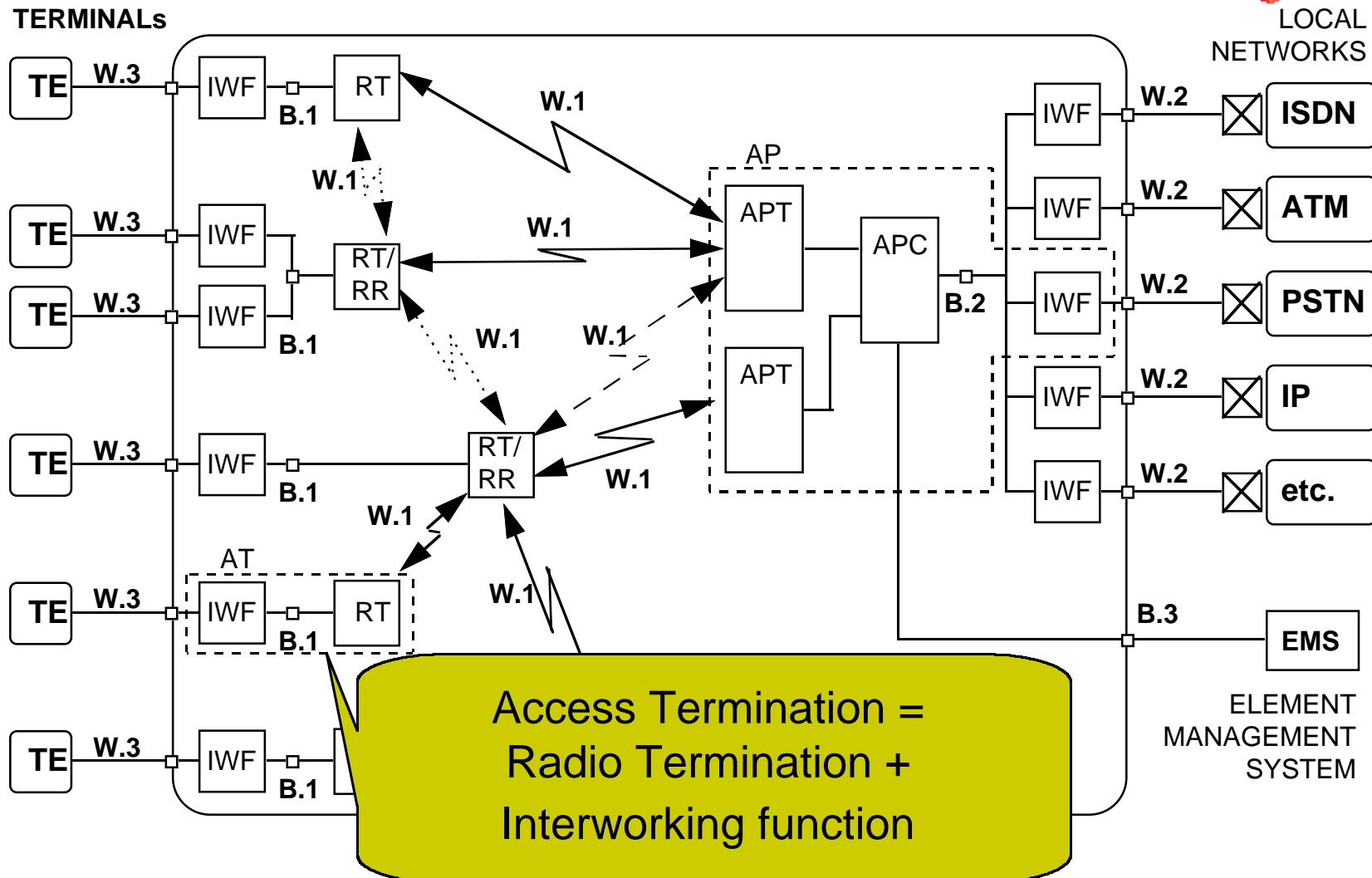


TERMINALS



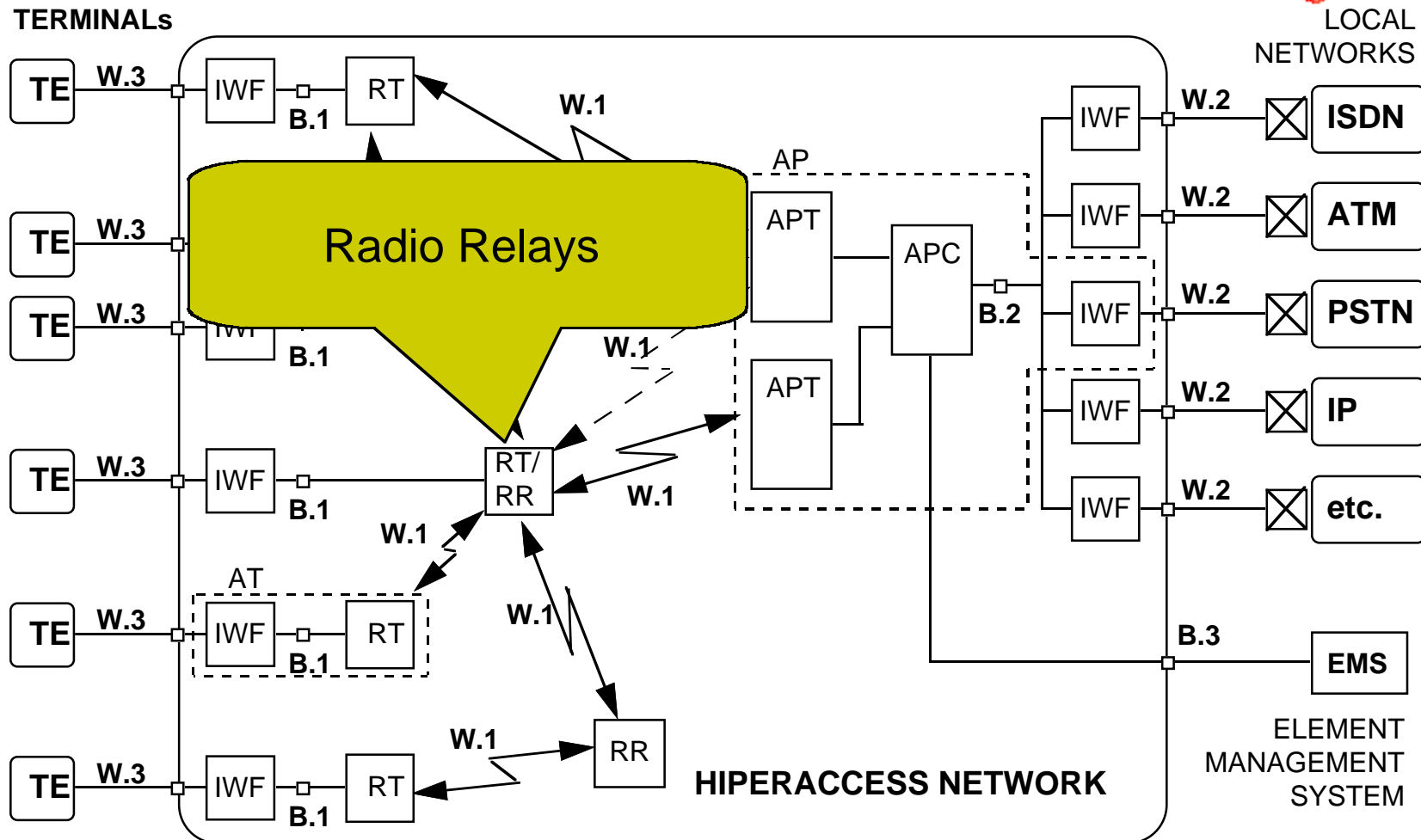


• *General Reference Model*





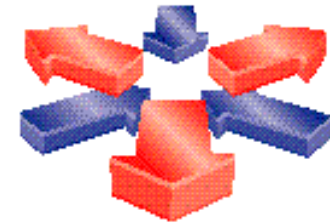
• *General Reference Model*





Status

- **HA Technical Requirements**
 - ***Available from ETSI as TR 101 177 V1.1.1 (1998-05)****
- **HA System Overview**
 - ***Final Draft (nearly) approved at HA level***



Spectrum Issues

- **Large core allocation. 3GHz BW.**
- **“Smaller” bands useful.**
- **Flexible channel arrangements.**
- **Minimal sharing constraints.**
- **Harmonised frequencies.**



What frequency bands?

- **Draft FWA Rec:**
 - ***3.410 - 3.600 GHz***
 - ***10.15 - 10.3/10.5 - 10.65 GHz***
 - ***24.5 - 26.5 GHz***
 - ***27.5 - 29.5 GHz***
- **Provisionally allocated to Fixed Services:**
 - ***31.8 - 33.4 GHz***
- **Draft revision of ERC/DEC/(96)05:**
 - ***40.5 - 42.5 GHz***
 - ***42.5 - 43.5 GHz***



Frequency Band Issues (1)

- **3.4 GHz and 10 GHz:**
 - *Limited bandwidth available.*
- **24.5 - 26.5 GHz:**
 - *Fixed Service channel plan inflexible. (TM4)*
 - *National uses.*
- **27.5 - 29.5 GHz:**
 - *Fixed Service channel plan inflexible. (ETSI TM4)*
 - *FSS sharing.*
 - *LMDS Band*



Frequency Band Issues (2)

- **31.8 - 33.4 GHz**
 - *Possible candidate*
- **40.5 - 42.5 GHz:**
 - *Allocation to FS subject to sharing studies.*
 - *To be ratified at WRC 2000.*
 - *No FS channelisation plans yet.*
- **42.5 - 43.5 GHz:**
 - *Sharing with Radio Astronomers.*



Plans

- **Interoperability**
 - ***Common air interface***
- **Coexistence**
 - ***A co-existence specification specifies those parameters necessary for frequency management with other HIPERACCESS systems in adjacent bands in the same area and the same bands in adjacent areas.***



Current Activities

- **General System Architecture**
- **TDD/FDD**
- **Spectrum Estimations**
- **Multiple Access Scheme.**
- **Collaboration HA/N-WEST**
- **Interim Meeting HA PHY - HA Spectrum**